

FIXATION OF SINGLE TYPE (LECTOTYPIC) SPECIMENS OF SPECIES OF
AMERICAN ORTHOPTERA.

DIVISION III.

BY ALBERT P. MORSE AND MORGAN HEBARD.

SPECIES OF NORTH AMERICAN ORTHOPTERA DESCRIBED
BY ALBERT PITTS MORSE.

The desirability of selection and fixation of a single type has been discussed and such work accomplished for a large number of species of North American Orthoptera in the first paper bearing the title here used by James A. G. Rehn and the present junior author.¹ The species of North American Orthoptera described by A. N. Caudell have been treated in similar manner in the second division of the series by their sponsor and the present junior author,² and in this paper the species described from North America by the present senior author, whether valid or established synonyms, are similarly treated.

It has been a rule with the senior author to consider every specimen of the series originally described as a type, but the selection from these of the single type by their author obviates all difficulties which might otherwise have arisen.

In the present paper, North America is used in its restricted sense, only including that part of the continent north of the Mexican line, as has been done in the other papers of the series, except in particular instances in the first division, where, in order to make certain of the sections complete, it was found necessary to include all of the species described in papers treating of North America south to the Isthmus of Panama.

Of the sixty-five units here considered the types of fifty-two are in the Morse Collection,³ ten in the Museum of Comparative Zoology and one each in the American Museum of Natural History, Cornell University and Hebard Collection.

As in the previous papers of this series, the nomenclature given

¹ PROC. ACAD. NAT. SCI. PHILA., 1912, pp. 60-128, (1912).

² PROC. ACAD. NAT. SCI. PHILA., 1912, pp. 157-168, (1912).

³ Unless otherwise stated, it is understood that the types here selected are in the Morse Collection.

in the original description is used throughout, as this paper is not intended to be in any way revisionary.

PARATETTIX HESPERUS.

Jour. N. Y. Ent. Soc., VII, p. 198, (1899).

Described from two hundred and seventy-six specimens of both sexes from one locality.

Single type here designated: ♀; Glendale, Oregon, September 9, 1897; Morse.

PARATETTIX TOLTECUS EXTENSUS.

Jour. N. Y. Ent. Soc., VII, p. 198, (1899).

Based on eighteen males and twenty-one females from six localities.

Single type here designated: ♀; San Bernardino, California, [July 16],⁴ 1897; [Morse].

TETTIX CRASSUS.

Jour. N. Y. Ent. Soc., VII, p. 201, (1899).

Based on eighteen males and twenty-three females from two definite localities and the State record.

Single type here designated: ♂; Colorado; Morrison.

TETTIX HANCOCKI.

Jour. N. Y. Ent. Soc., VII, p. 200, (1899).

Described from fourteen males and fourteen females from a single locality.

Single type here designated: ♂; Ames, Iowa, [May 30]; E. D. Ball.

T[ETTIX] H[ANCOCKI] ABBREVIATUS.

Jour. N. Y. Ent. Soc., VII, p. 200, (1899).

Based on specimens from the type series of *Tettix hancocki*.

Single type here designated: ♂; Ames, Iowa, [May 24]; E. D. Ball.

TETTIX TENTATUS.

Jour. N. Y. Ent. Soc., VII, p. 200, (1899).

Based on one male and five females from four localities.

Single type here designated: ♀; Laggan, Alberta; Bean; Museum of Comparative Zoology.

⁴The use of brackets in the present paper indicates authentic information not contained in the original description.

NOMOTETTIX COMPRESSUS.

Jour. N. Y. Ent. Soc., III, p. 15, (1895).

Based on two males and five females from a single questioned State.

Single type here designated: ♂; probably North Carolina; G. F. Atkinson; Cornell University.

NOMOTETTIX CRISTATUS DENTICULATUS.

Psyche, XIII, p. 119, (1906).

Based on six males and one female from four localities.

Single type here designated: ♂; Denison, Texas, August 11, 1905; Morse.

NOMOTETTIX PARVUS.

Jour. N. Y. Ent. Soc., III, p. 14, (1895).

Based on four males, one female and one immature specimen from one locality.

Single type here designated: ♂; St. Anthony Park, Minnesota; Lugger.

TETTIGIDEA ACUTA.

Jour. N. Y. Ent. Soc., III, p. 15, (1895).

Based on three females from a single locality.

Single type here designated: ♀; New York; Uhler; Museum of Comparative Zoology.

TETTIGIDEA ARMATA.

Jour. N. Y. Ent. Soc., III, p. 107, (1895).

Described from two males and seven females from two known and one unknown locality.

Single type here designated: ♀; Vigo County, Indiana, [September 6, 1893]; Blatchley.

T[ETTIGIDEA] ARMATA DEPRESSA.

Jour. N. Y. Ent. Soc., III, p. 107, (1895).

Based on one male and four females from five localities.

Single type here designated: ♀; Vigo County, Indiana; Blatchley.

TETTIGIDEA APICULATA.

Jour. N. Y. Ent. Soc., III, p. 16, (1895).

Based on a pair from a single locality.

Single type here designated: ♀; New Orleans, Louisiana; Akhurst; Museum of Comparative Zoology.

TETTIGIDEA DAVISI.

Psyche, XV, p. 25, (1908).

Described from fifteen specimens from three localities.

Single type here designated: ♀; Perth Amboy, New Jersey, May 31; Wm. T. Davis.

TETTIGIDEA PRORSA ELONGATA.

Jour. N. Y. Ent. Soc., III, p. 16, (1895).

Described from two males and one female from a single State.

Single type here designated: ♀; Georgia; Museum of Comparative Zoology.

TETTIGIDEA SPICATA.

Jour. N. Y. Ent. Soc., III, p. 108, (1895).

Based on one male and two females from two localities.

Single type here designated: ♀; Florida; Morrison; Hebard Collection, Type No. 402.

PSEUDOPOMALA BRACHYPTERA REVERSA.

Psyche, VII, p. 343, (1896).

Based on material from unspecified localities.

Single type here designated: ♀; [Sudbury, Massachusetts, July 10, 1892; Morse.]

CORDILLACRIS AFFINIS.

Psyche, X, p. 115, (1903).

Based on one male and five females from a single county.

Single type here designated: unique ♂; Ormsby County, Nevada, lower edge of pine zone, 1,700-2,000 metres, west of Carson City, July 6; C. F. Baker.

ORPHULELLA OLIVACEA.

Psyche, VI, p. 477, (1893).

Based on one hundred and eighty males and one hundred and sixty-seven females from two localities.

Single type here designated: ♀; Stamford, Connecticut, August [13 to 17, 1891]; Morse.

CLINOCEPHALUS ELEGANS.

Psyche, VII, p. 402, (1896).

Based on five males and two females from two definite, two State, and one unknown locality.

Single type here designated: ♂; Ravenswood, Long Island, New York; Beutenmüller; Museum of Comparative Zoology.

CHLÆALIS CONSPERSA PRIMA.

Psyche, VII, p. 420, (1896).

Based on an unspecified series from three localities.

Single type here designated: ♀; Sherborn, Massachusetts, 1895; Morse.

STENOBOTHRUS ACUTUS.

Psyche, X, p. 115, (1903).

Based on five males from a single locality.

Single type here designated: ♂; Ormsby County, Nevada, lower edge of pine zone, 1,700–2,000 metres, west of Carson City, July 6; C. F. Baker.

HIPPISCUS IMMACULATUS:

Psyche, XIII, p. 119, (1906).

Described from a unique male from Clarendon, Texas, August 18, 1905; Morse.

S[PHARAGEMON] ÆQUALE subsp. SCUDDERI.

Proc. Bost. Soc. Nat. Hist., XXVI, p. 225, (1894).

Based on eighty-eight males and ninety-eight females from eight localities.

Single type here designated: ♀; Sherborn, Massachusetts, July 25, 1892; Morse.

[SPHARAGEMON COLLARE] race ANGUSTIPENNE.

Psyche, VII, p. 298, (1895).

Based on nine males and four females from a single locality.

Single type here designated: ♀; Salt Lake Valley, Utah, 4,300 feet, August 1 to 4[, 1877]; Museum of Comparative Zoology.

[SPHARAGEMON COLLARE] race PALLIDUM.

Psyche, VII, p. 299, (1895).

Based on four males and two females from one locality.

Single type here designated: ♀; White River, Colorado, July 24 to August 13; Museum of Comparative Zoology.

SPHARAGEMON HUMILE.

Psyche, VII, p. 292, (1895).

Based on two males from a single locality.

Single type here designated: ♂; Garden of the Gods, Colorado; Museum of Comparative Zoology.

SPHARAGEMON INORNATUM.

Psyche, VII, p. 291, (1895).

Described from a unique female, Hot Springs, New Mexico, 7,000 feet.

SPHARAGEMON OCULATUM.

Proc. Bost. Soc. Nat. Hist., XXVI, p. 232, (1894).

Based on seven males and seven females from probably four localities.

Single type here designated: ♀; Marshall County, Indiana, August 1, 1892; Blatchley, (dried alcoholic).

SPHARAGEMON SAXATILE.

Proc. Bost. Soc. Nat. Hist., XXVI, p. 229, (1894).

Based on ninety-one males and sixty females from eleven localities.

Single type here designated: ♀; Blue Hill, Massachusetts, [September 20, 1891]; Morse.

SPHARAGEMON SAXATILE PLANUM.

Psyche, XI, p. 13, (1904).

Based on twenty-two males and ten females from a single locality.

Single type here designated: ♀; Wytheville, Virginia, September 4 to 5, 1903, 2,300 feet; Morse.

EOTETTIX PALUSTRIS.

Psyche, XI, p. 7, (1904).

Described from three males and one female from one locality.

Single type here designated: ♂; Live Oak, Florida, August 10, 1903; Morse.

EOTETTIX PUSILLUS.

Psyche, XI, p. 7, (1904).

Based on seventeen males and two females from two localities.

Single type here designated: ♂; Waycross, Georgia, August 11, 1903; Morse.

HESPEROTETTIX FLORIDENSIS.

Can. Ent., XXXIII, p. 130, (1901).

Described from fourteen males and four females from a single locality.

Single type here designated: ♂; Hastings, Florida, August 17 to 18, [1900; A. J.] Brown.

HESPEROTETTIX NEVADENSIS.

Psyche, X, p. 115, (1903).

Described from three males and three females from a single locality.

Single type here designated: ♂; Ormsby County, Nevada, lower edge of pine zone, 1,700-2,000 metres, west of Carson City, July 6; C. F. Baker.

BRADYNOTES COMPACTA.

Psyche, X, p. 116, (1903).

Described from four males and four females from a single locality.

Single type here designated: ♂; Ormsby County, Nevada, lower edge of pine zone, 1,700-2,000 metres, west of Carson City, July 6; C. F. Baker.

PODISMA SCUDDERI.⁵

Psyche, XIII, p. 120, (1906).

Described from a unique female from Cheaha [Chehawhaw] Mountain, Alabama, July 13, 1905, 2,300 feet; Morse.

PARATYLOTROPIDIA BEUTENMUELLERI.

Psyche, XIV, p. 14, (1907).

Based on a unique female, Valley of Black Mountain, North Carolina, August 30, 1906, W. Beutenmüller; American Museum of Natural History.

MELANOPLUS AUSTRALIS.

Psyche, XI, p. 13, (1904).

Based on a unique male, Savannah, Georgia, August 14, 1903; Morse.

MELANOPLUS CARNEGIEI.

Psyche, XI, p. 10, (1904).

Based on nine males and two females from three localities.

Single type here designated: ♂; Denmark, South Carolina, August 15, 1903; Morse.

MELANOPLUS CELATUS.

Psyche, XI, p. 10, (1904).

Based on five males and three females from one locality.

Single type here designated: ♂; Wytheville, Virginia, September 4 to 5, 1903, 3,000-3,500 feet; Morse.

⁵ New name, *Podisma australis*, proposed by Morse, *Psyche*, XIV, p. 57, (1907).

MELANOPLUS DECEPTUS.

Psyche, XI, p. 9, (1904).

Based on eight males and eight females from a single locality.

Single type here designated: ♂; Jones Peak, Balsam Mountains, North Carolina, August 19, 1903, 5,700–6,100 feet; Morse.

MELANOPLUS DECORATUS.

Psyche, XI, p. 12, (1904).

Based on five males and sixteen females from four localities.

Single type here designated: ♂; Murphy, North Carolina, July 25, 1903, 1,800 feet; Morse.

MELANOPLUS DEVIUS.

Psyche, XI, p. 12, (1904).

Based on twenty-four males and twenty-one females from two localities.

Single type here designated: ♂; Wytheville, Virginia, September 4 to 5, 1903, 3,000–3,500 feet; Morse.

MELANOPLUS DIVERGENS.

Psyche, XI, p. 8, (1904).

Based on fifteen males and eighteen females from one locality.

Single type here designated: ♂; Balsam, North Carolina, July 24, 1903, 5,000–6,000 feet; Morse.

MELANOPLUS HARRISI.

Psyche, XVI, p. 12, (1909).

Described from a unique male, Needham, Massachusetts, August 23, 1908, rank herbage in upland field; Morse.

MELANOPLUS LATENS.

Psyche, XIII, p. 120, (1906).

Based on six males and ten females from four localities.

Single type here designated: ♂; Caddo, Indian Territory, August 9, 1905; Morse.

MELANOPLUS SCUDDERI LATUS.

Psyche, XIII, p. 122, (1906).

Based on two males from one locality.

Single type here designated: ♂; Bonita, Texas, August 14, 1905; Morse.

MELANOPLUS SIMILIS.

Psyche, XI, p. 9, (1904).

Based on three males from a single locality.

Single type here designated: ♂; Murphy, North Carolina, July 25, 1903, 1,800 feet; Morse.

MELANOPLUS STRUMOSUS.

Psyche, XI, p. 11, (1904).

Based on one male and four females from two localities.

Single type here designated: unique ♂; De Funiak Springs, Florida, August 5, 1903; Morse.

MELANOPLUS SYLVESTRIS.

Psyche, XI, p. 10, (1904).

Based on thirteen males and seventeen females from four localities.

Single type here designated: ♂; Blowing Rock, North Carolina, July 19, 1903, 3,500-4,000 feet; Morse.

MELANOPLUS SYMMETRICUS.

Psyche, XI, p. 8, (1904).

Based on three males and six females from a single locality.

Single type here designated: ♂; Carrabelle, Florida, August 9, 1903; Morse.

MELANOPLUS TEPIDUS.

Psyche, XIII, p. 121, (1906).

Based on three males and three females from one locality.

Single type here designated: ♂; Meridian, Mississippi, July 16, 1905; Morse.

MELANOPLUS TRIBULOIDES.

Psyche, XIII, p. 121, (1906).

Based on three males and five females from two localities.

Single type here designated: ♂; Cheaha [Cheshawhaw] Mountain, Alabama, July 13, 1905, 2,000-2,800 feet; Morse.

MELANOPLUS TRIBULUS.

Psyche, XI, p. 11, (1904).

Based on two males and one female from a single locality.

Single type here designated: ♂; [Sharptop Mountain, spur of Grassy Mountain], Jasper, Georgia, July 25, 1903, 2,600 feet; Morse.

MELANOPLUS TUBERCULATUS.

Psyche, XIII, p. 121, (1906).

Described from twelve males and three females from two localities.

Single type here designated: ♂; Quanah, Texas, August 21, 1905; Morse.

SCUDDERIA CUNEATA.

Can. Ent., XXXIII, p. 130, (1901).

Described from a unique male, Alabama; Baker.

NIPHIDIUM GRACILLIMUM.

Can. Ent., XXXIII, p. 236, (1901).

Described from five males and one female from two localities.

Single type here designated: ♂; [Miami], Biscayne Bay, Florida; Mrs. A. T. Slosson, Museum of Comparative Zoology.

NIPHIDIUM OCCIDENTALE.

Can. Ent., XXXIII, p. 202, (1901).

Based on sixty-nine males, sixty females and three immature specimens from eleven localities.

Single type here designated: ♂; Tehachapi, California, [August 3,] 1897; Morse.

X[NIPHIDIUM] OCCIDENTALE CAMURUM.

Can. Ent., XXXIII, p. 202, (1901).

Based on a single female, Ashland, Oregon, September 7, 1897; Morse.

X[NIPHIDIUM] OCCIDENTALE CAUDATUM.

Can. Ent., XXXIII, p. 203, (1901).

Based on one male and two females from a single locality.

Single type here designated: ♀; Mount Shasta district, California, July; H. Edwards, Museum of Comparative Zoology.

NIPHIDIUM SPINOSUM.

Can. Ent., XXXIII, p. 201, (1901).

Based on three males, two females and one immature female from a single locality.

Single type here designated: ♂; Coronado, California, July 24, 1897, on salt marsh; Morse.

XIPHIDIUM VICINUM.

Can. Ent., XXXIII, p. 203, (1901).

Described from sixty-one males and fifty-nine females from fifteen localities.

Single type here designated: ♂; Palm Springs, California, [July 10,] 1897; Morse.

[XIPHIDIUM VICINUM] form PRODUCTUM.

Can. Ent., XXXIII, p. 204, (1901).

Based on a portion of the typical series of *Xiphidium vicinum*.

Single type here designated: ♀; San Bernardino, California, [July 15,] 1897; Morse.

ODONTOXIPHIDIUM APTERUM.

Can. Ent., XXXIII, p. 129, (1901).

Based on twelve males, sixteen females and two immature specimens from one locality.

Single type here designated: ♂; Hastings, Florida, August [18 to 21, 1900; A. J.] Brown.